CONSERVATION DISTRICT

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Mission Statement

The Centre County Conservation District is a committed, professional agency functioning as the primary local source of assistance to all individuals and organizations who benefit from the county's natural resources that we collectively strive to sustain and improve.

CENTRE COUNTY CONSERVATION DISTRICT 414 HOLMES STREET, SUITE 4
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Conservation Conversation

Centre County Conservation District 2016 Annual Report

The Centre County Conservation District celebrated 62 years of service to Centre County residents in 2016. The Centre County Conservation District was formed at the request of farmers and others in the county who were interested in conservation of soil and water resources, and land use planning. The District was declared a Conservation District by the Centre County Board of Commissioners in October 1954. The District was initially organized to provide for the conservation of soil and water resources, assist in watershed protection and flood prevention, preserve woodland and wildlife, protect public lands, and to protect and promote the health, safety, and general welfare of the people within the community. The District is a subdivision of state government and is administered by a volunteer based Board of Directors. The District board is currently composed of four farmer directors, two urban-public directors, one county commissioner, and four associate directors. In 2016, there were eight full-time employees. Some of the programs that the District staff administer include: The Erosion and Sediment Pollution Control Program; National Pollutant Discharge Elimination System (NPDES) permitting program; Chapter 105 Stream Encroachments program; Dirt, Gravel & Low Volume Roads; Chesapeake Bay Program; Nutrient Management; Ag Conservation technical assistance; as well as sponsor the County Envirothon. Monthly board meetings are held the second Wednesday of each month in Room 146 of the Willowbank Building, Bellefonte, at 7:30 p.m., and are open to the public.

Conservation District Help Farmers Obtain Required Farm Plans

The Conservation District has been holding local public workshops, visiting with individual farmers, and funding Contract Plan Writers to help farmers develop the written farm plans required by State law. Anyone who has livestock (even just a few) or applies manure to their land needs a written Manure Management Plan. Anyone who disturbs 5,000 square feet (1/10 of an acre) or more of land requires a written Agricultural Erosion and Sediment (E&S) Control Plan. The State has launched an initiative called the Chesapeake Bay Re-Boot strategy, which includes visiting farms to ensure they have the required plans.

In March 2016, the Conservation District held a successful plan development workshop in Bellefonte. 82 attendees obtained Manure Management Plan workbooks and learned how to write their own farm plans. The Plans do not need to be submitted to any agency; but, they need to be available at the farm upon request.

The Conservation District has nearly completed a grant that paid Contract Plan Writers to develop the plans needed for farmers that requested assistance. To date, the Contract Plan Writers have assisted 157 farms in Centre County. These farms are now in compliance with State law, having one or both plans, as needed for their specific operation. This includes 139 Manure Management Plans and 132 Agricultural Erosion & Sediment Control Plans. These 157 farms encompass 21,045 acres cropland, 3,411 acres pasture land and 9,331 Animal Equivalent Units (1 Animal Equivalent Unit = 1,000 pounds of live animal weight). In addition to plan development, we were able to discuss financial assistance programs that may be available to

install Best Management Practices (BMPs) needed to address resource concerns.

Through the Chesapeake Bay grant program, the District was also able to assist farmers with obtaining a Comprehensive Nutrient Management Plan. This plan will help the farm qualify for federal financial assistance to install structural BMPs on the farm, such as manure storage and barnyard heavy use area protection.

Farm/City Dinner

The Farm/City Dinner was held on Wednesday, November 9, 2016 at the New Hope Lutheran Church in Spring Mills. The dinner was sponsored by the Bellefonte FFA, the Centre County Conservation District, the Centre County Farm Bureau, the Kiwanis Club of State College and Penn State Extension of Centre County. Emma Spackman, 2016 Centre County Grange Fair Queen, is the daughter of Jeff and Kathy Spackman of Port Matilda. She plans to attend Penn State majoring in pre-school education and continue to help on the family farm. Emma served as Mistress of Ceremonies. Centre County Dairy Prince and Princess, Justin Kurtz and Halee Wasson hosted a Milk and Cheese reception.



Emma Spackman~Mistress of Ceremonies 2016 Centre County Grange Fair Queen



Halee Wasson
2016 Centre County Dairy Princess
and 60th Pennsylvania Dairy Princess







Mike Brammer, was our guest speaker. He is the Executive Director of the PA FFA Association and Executive Secretary of the Pennsylvania Association of Agricultural Educators (PAAE). He is also a member of the Friends of Farm Show Foundation Board. Mike previously served as Secretary of the National Association of Agriculture Educators for 8 years, and for 3 years he was on the National FFA Board of Directors. Before coming to FFA he was self employed for 13 years. Mike creates opportunities for agriculture educators and students to interact with and support each other. He provides the most professional training possible to all FFA members, and provides local ag teachers with the latest information about FFA programs, policies and involvement of business and industry representatives. He works hard to better the lives of FFA members.

Ann Donovan, Centre County Watershed Specialist, presented the Watershed Stewardship Award to True Fisher for her dedicated work at Talleyrand Park. John Wataha, the Centre County Conservation District's Nutrient Management Technician, presented the Outstanding Conservation Farmer Award to Clint Buck. Jim Coslo and Mike Philippe presented the Clean Streams Award for Excellence in Erosion Control to Budd Brooks of Potter Township.

Watershed Stewardship Award



True Fisher ~ Ann Donovan ~ Talley Fisher

True Fisher, current chair of the Talleyrand Park Committee, received the 2016 Watershed Stewardship Award for 43 years of dedicated stewardship of Talleyrand Park. True and her late husband, Rob, a local artist, were founding members of the Talleyrand Park committee. Rob and True formed the group in 1974, in order to help Bellefonte Borough develop a park on a vacant piece of land that had been cleared of decrepit commercial buildings. In 1975 Council approved Rob's design for the park and in 1976, the Gazebo, another Fisher design, was completed. In 1978 the Gulf Oil Company donated the land that would become the Sculpture Garden, housing the George Grey Barnard casting of Lincoln. In 1985 a foot bridge connected the Sculpture Garden to the peninsula and in 1986 Kerry Uhler designed the suspension bridge over Spring Creek. Members of an area youth corps installed both bridges. Rob Fisher designed the Pergola in 1988 and the Promenade in 1989. Later additions to the Park include the Playground, donated by Supelco and the Governors' Memorial funded by the Jaycees and built by Vo-tech students. In 2010 the Borough extended Talleyrand Park and in 2011 the Edible Landscape garden was planted in the new section. More recently, plans for a pollinator garden were implemented, the historic freight station, future home of a kayak/canoe museum was moved to the park and two fountains, one in memory of Gino Fornicolo, were added.

Over the last several years the Centre County Conservation District has partnered with the US Fish and Wildlife Service, the Talleyrand Park Committee of the Bellefonte Historical and Cultural Association, Bellefonte Borough and the Centre County Correctional Facility to stabilize the left bank of Spring Creek. In 2012 we extended the stone wall from the existing wall to the suspension bridge. A year later we completed that project by building a section of wall from the suspension bridge to the mill race and we addressed another serious erosion issue on the left bank by building a 56 foot mudsill. Later we installed an additional 140 feet of mudsill on that stream bank. In total the partners have conserved almost 300 feet of important park property by stabilizing the entire left side of the stream.

As chair of the Talleyrand Park committee, True played a vital role in the overall implementation of this work. Thanks goes to True Fisher and her partners who have worked diligently over the last four decades to protect, preserve and improve the park. Their efforts ensure the continuation of the park, an important landmark not only for Bellefonte,



but for the entire county. The park provides an opportunity for many people to enjoy and appreciate one of our most valuable natural resources.

Outstanding Conservation Farmer Award

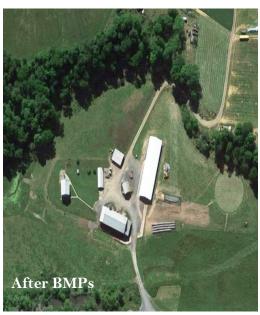


The Clink Buck dairy operation is located in Penn Township. Elk Creek runs adjacent to the operation. An Elk Creek tributary originates from a cave located on the property. In 2012 the Penns Valley Conservation Association (PVCA) approached Clint and asked if he would be interested in participating in available programs to help address resource concerns that existed on his operation. After Clint agreed to participate the Centre County Conservation District (CCCD) developed a Growing Greener Grant application on behalf of PVCA. CCCD then partnered with the Natural Resources Conservation Service (NRCS) to assist Clint in the development of a Comprehensive Nutrient Management Plan (CNMP). Once the CNMP was developed Clint was able to obtain funding from both NRCS and PVCA. CCCD also assisted PVCA in developing a Watershed Restoration and Protection Grant sponsored by the Commonwealth Finance Authority. This enabled the project to utilize 3 funding sources for the construction of Best Management Practices. Utilizing Chesapeake Bay Special Projects funding the CCCD contracted with R&R Engineering to complete a site survey, designs, construction inspections and certification of the following Best Management Practices:



Milkhouse Waste Water Treatment System (Tank / Pump / Pipeline / Vegetative Treatment Area) Manure Stacking Facility Heavy Use Area Protection Water Supply Pipeline Watering Facility Roof Runoff Controls Underground Outlets Structure for Water Control Access Lane Cattle Walkway Stream Access Ramp Streambank Fence Riparian Forest Buffer Plantings Perimeter, Interior & Safety Fence

Because Clint Buck was willing to address the resource concerns existing on his operation he was able to obtain these estimated yearly pollu-



tant load reductions: 3,540 lbs of Nitrogen, 1,416 lbs of Phosphorus and over 40,000 gallons of milkhouse wastewater. Milkhouse wastewater is especially detrimental to streams due to its high biological oxygen demand (BOD). Raw milk has a BOD 100 times greater than septic tank effluent. Cleaning the bulk tank, pipeline and milking equipment results in 2-3 gallons of milk entering the wastewater system each day. If allowed to enter water bodies, milk, manure, and detergents can cause an ecological imbalance which will result in algae blooms, fish kills, abundant foam and strong odors.

The effectiveness of Best Management Practices depends heavily on proper Operation & Maintenance. Clint Buck has demonstrated the ability to properly operate and maintain the BMPs installed on his operation.

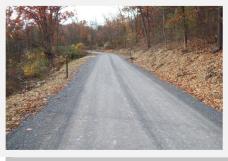
Clean Streams Award for Excellence in Erosion Control



The Centre County Conservation District administers the Chapter 102, Soil Erosion and Sediment Pollution Control Program, a regulatory program that requires the design of an Erosion Control Plan and the implementation of BMPs, or "Best Management Practices" during construction. Each year, the Conservation District presents the Clean Streams Award to an individual, company or organization that best demonstrates the initiative to excel in the area of soil erosion control. This year, the Conservation District presents the Clean Streams Award to **Budd Brooks**.

Budd is the Potter Township Roadsmaster tasked with maintenance of 57 miles of roads and 7 Township bridges. In addition to snow plowing and winter maintenance of the roads, Budd also must perform maintenance activities to the roads throughout the year. In addition he oversees the operation and maintenance of the Township's trucks and equipment fleet, and performs other Township projects as needed. Grant tracking and implementation for Liquid Fuels dollars and Dirt, Gravel and Low Volume Roads (DGLVR) projects are also part of Mr. Brooks' duties, as well as the supervision of 4 full-time employees. Budd has been with Potter Township for 34 years.

Over the years, Budd has contacted our office for permit guidance for various activities and for DGLVR project grants. The DGLVR grant program focuses on public road projects to minimize environmental impacts to nearby stream resources through improvements in drainage and road features.



Blackhawk Road

Budd has a great understanding of the regulations that the Conservation District administers regarding soil erosion control and



Boal Gap Road, stream crossing pipe replaced in an unnamed tributary to Boal Gap Run

waterway management, and demonstrates this both in the field and when discussing projects. He takes special care with his DGLVR projects to improve Township roads for the public and better protect the natural resources of Centre County; all the while being aware of, following and meeting the environmental regulations involved.

Budd was born and raised in the Bellefonte/Pleasant Gap area, and is a Bellefonte High School graduate. He is a Veteran of our Armed Forces, serving for 4 years in the US Air Force. While in the Air Force, he attended heavy equipment school. After the Air Force, he worked with a local excavator before starting at Potter Township. Budd is a member of the Centre Hall Lions Club and enjoys riding his motorcycle, hunting and fishing when he has time! Budd has a daughter, Amy in Texas; and a son, Andrew residing in Virginia.

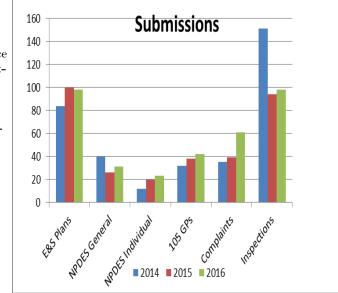
Erosion and Sediment Pollution Control Program

The Centre County Conservation District continues to administer the Chapter 102, Soil Erosion and Sediment Pollution Control program; NPDES permitting for stormwater discharges from construction activities; and Chapter 105, Dam Safety and Waterway Management programs through delegation agreements with the PA Department of Environmental Protection. There were no major program changes in 2016, but DEP has revised several of the forms, most notably, the Notice of Intent for NPDES permits, and the Chapter 105 General Permit Registration form. It should be noted, that permit forms have been changing frequently in recent years. Always be sure to check the DEP and Con-

servation District websites to make sure you are using the most current form when applying for a permit.

When submitting Chapter 105 General Permits, there is a new "Aquatic Resource Impact Table" that must now be completed and submitted with the permit registration. Unlike in years past, all impacts must be listed separately on this table, even if being constructed as part of a single project.

The number of E&S plan submissions is down very slightly from 2015, but all other submissions to the Conservation District, including NPDES permits, 105 General permits, and complaints; have increased. The numbers of inspections conducted by the Conservation District are also up slightly from last year.



2017 Conservation Poster Contest

Your class/group/child is invited to participate in the annual conservation poster contest. This is your chance to help <u>every</u> student become active in today's pursuit of a sustainable environment – while being creative and having fun.

The Pennsylvania Association of Conservation Districts' (PACD) Education and Youth Committee has chosen the following theme:





Forward entries to:

Centre County Conservation District 414 Holmes Street, Suite 4 Bellefonte, PA 16823



CALENDAR OF EVENTS

April

- 12-Board Meeting
- 22-Earth Day
- **22–**Watershed Clean up Day
- 28-Arbor Day
- **28 & 29-**Tree Seedling Distribution Grange Fairgrounds

May

- 10-Board Meeting
- **10-**Centre County Envirothon
- 23-24- State Envirothon
- **29-**Memorial Day –

Office Closed

June

- 14-Board Meeting
- 14-Flag Day

July

- **4-**Independence Day Office Closed
- 12-Board Meeting
- **23-29-**NCF North American Envirothon

August

- 9-Board Meeting
- 15-17-Ag Progress DaysRock Springs
- **18-26-**Centre County Grange and Encampment Fair

Connecting with NACD's 2017 education materials, the 2017 Poster Contest theme is "Healthy Soils Are Full of Life." The contest helps teach students about where their food comes from, highlighting the important role of soils. The annual poster contest provides K-sixth grade students an opportunity to convey their thoughts about soil, water, and related natural resource issues through art.

The Centre County Conservation District sponsors the annual poster contest at the county level. The divisions are: K-1, 2-3, and 4-6. All first, second, and third place winners will receive a certificate and cash prize, and posters will be displayed in the lobby of the Willowbank Building. First place winners will be sent to PACD for the *state* competition. State winners will be sent to the National Association of Conservation Districts (NACD) for the *national* competition.

The <u>deadline</u> to submit posters to the Conservation District is Tuesday, <u>May 22, 2017</u>.

Dirt, Gravel and Low Volume Roads Program Summary

The Centre County Conservation District received 8 applications from 6 applicants (5 Municipalities and the PA Game Commission) who have attended *Environmentally Sensitive Maintenance for Dirt, Gravel and Low Volume Roads* training workshops, making them eligible to apply for funding though this program. After a site visit of each, 6 were selected by the Centre County Conservation District's Quality Assurance Board (QAB, consisting of representation from the PA Fish & Boat Commission, Natural Resources Conservation Service, and the Conservation District) for a recommendation to provide funding for a total of over \$140,000. Many participants also provide "in-kind" (their own) funding to complete projects.

The following 6 approved projects, which include 2 paved/sealed Low Volume Roads (LVR) projects were funded:

LVR Projects

Davidson Road, Boggs Township: Replace 4 crosspipes, install road base material, and install Driving Surface Aggregate (DSA). About 800' of project length.

Beaver Dam Road, Penn Township: Vegetative management- remove 30 large trees from road right of way and replace 3 crosspipes. About 1000' of project length.

D&GR Projects

Orviston Mountain Road, Curtin Township: Place 2600' of DSA and replace a crosspipe.

Shiloh Road; SGL 333 (PGC owned), Benner Township: Improve stormwater drainage with 2 french mattresses and install DSA. About 1300' of project length.

Decker Valley Road, Potter Township: Improve roadside drainage with underdrain and new pipe in parallel ditch; DSA installed on 1400' project length.

Vonada Gap Road, Gregg Township: New crosspipe and existing crosspipe replaced; DSA placement, project length about 2500'.

The Dirt, Gravel and Low Volume Roads Program wishes to promote a better public road system with a reduced environmental impact with a focus on utilizing recognized "Environmentally Sensitive Road Maintenance (ESM) Practices". Funding is limited to public roads, owned and maintained by municipalities or other state or local public entities. Applicants wishing to participate must have personnel that both design and oversee their proposed project and have been recently (within 5 years) trained in Environmental Sensitive Maintenance for Dirt, Gravel and Low Volume Roads.

Often, an effort to better manage drainage both from the road surface and keeping offsite runoff from draining onto or across the road is key to proper maintenance and will help to minimize impacts to our waterways resulting in a longer lasting smooth road and nearby streams being less impacted!

Contact the Centre County Conservation District for more information regarding the Dirt, Gravel and Low Volume Roads Program or check out the Center for Dirt and Gravel Road Studies website at: www.dirtandgravel.psu.edu



2016 Annual Report-Watershed Management

Ann Donovan, Watershed Specialist

In 2016 the Centre County Conservation District helped local environmental organizations with projects that promoted their goals and objectives. In addition to providing this support we carried out watershed improvement projects of our own.

During the year two monitoring groups continued to collect water samples and report on the status of our streams. Members of the Centre County Chapter of the Senior Environment Corps at ClearWater Conservancy have monitored county waterways since 2002, making monthly visits to sites throughout the county to conduct field measurements. Two of the teams visited sites in the Marcellus Shale territory in the Beech Creek and Snow Shoe areas and their samples were taken to Lock Haven University to be analyzed under the direction of Professor Khalequzzaman. PASEC partnered with PSU to provide students with monitoring opportunities on Buffalo Run, Halfmoon Creek and at Big Run in the Beech Creek watershed.

The Spring Creek Watershed Monitoring Project has been collecting data from Spring Creek and its tributaries since 1997. The project, sponsored by the Spring Creek Watershed Association, employs a full time coordinator who is housed at ClearWater Conservancy. Information about these groups may be found on the web at www.ccpasec.org (CCPASEC) and www.springcreekwatershed.org/water-resources-monitoring-project-wrmp.html (Spring Creek WRMP).

The Bald Eagle Watershed Association built a second canoe/kayak access on the Bald Eagle Creek this year with funds from Western Pennsylvania Conservancy. The first access, installed in 2015, is at the bridge in Milesburg. The second access is located at the bridge in Curtin. Members of the Canoe Club of Centre County and Boggs Township staff installed the access and repaired the parking lot. The Bald Eagle Area School District, with funding from Domtar Paper Company, is working on a Forest Stewardship Plan with the Nature Conservancy that will address 400 acres of BEASD woods. The Bald Eagle Watershed Association's website address is www.baldeaglewater.com.

The Penns Valley Conservation Association experienced some personnel changes. Becky Bragg was hired as Director of Operations. Jim Flanagan continues to serve as Education Coordinator, bringing quality environmental education to Penns Valley students at Muddy Paws and other places throughout the Valley. PVCA projects included the implementation, some in partnership with the CCCD, of agricultural BMPs, streambank fencing and riparian buffer planting. The Early Successional Riparian Forest project is a current focus. For more information about PVCA visit their web site at www.pvca.net.

The Spring Creek Watershed Association has continued the Atlas project, a multi-media venture that will educate the public about the Spring Creek watershed, providing critical information that will assist in making future decisions. The group continued to learn each month from guest speakers about local environmental issues. Information about this group may be found at www.springcreekwatershed.org.

The Spring Creek Watershed Commission, made up of representatives from municipalities within the watershed, continued to meet monthly in 2016, featuring a speaker from the community at each meeting. They provided funding for Americorps volunteer Lexie Orr to serve as the Spring Creek Watershed Conservation Coordinator. Other information about the group may be found on their web site, www.scwatershed.com.

The Spring Creek Chapter of Trout Unlimited sponsored restoration projects in Spring Creek and its tributaries. They hosted a fishing program for veterans and sponsored Trout in the Classroom projects in local schools. This year the group received a national award, the 2016 Gold Trout Award, for being the nation's most outstanding TU Chapter. You may learn more about their activities at www.springcreektu.org.

The District worked with National TU and the US Youth Fly Fishing team to install structures on Thompson Run and the Romolo Branch of Marsh Creek. CCCD assisted with the educational activities for the students working on the projects.



CCCD continued to work with the West Branch Susquehanna River Watershed Coalition to address acid mine drainage in the Beech Creek and Moshannon Creek watersheds through the exchange of information and educational initiatives. Their web site address is www.wbsrc.org.

The District supported the activities of Clearwater Conservancy by serving on various ClearWater committees and by working with them on agriculture projects in the Spring and Spruce Creek watersheds. The District participated in the annual Clean Up Day, held in April. For information about the work carried out by ClearWater Conservancy go to www.clearwaterconservancy.org.

Curtin Canoe Access

CCCD coordinated a Day of Caring site in 2016. Volunteers from Bald Eagle Area School District and the Canoe Club of Centre County planted a buffer at Sunnyside on Spring Creek.

True Fisher, chair of the Talleyrand Park Committee received the District's 2016 Watershed Stewardship Award for her work in Talleyrand Park. The District is partnering with Bellefonte Borough and the Talleyrand Park committee to install another mudsill in Talleyrand Park in 2017, this time on River Right. Funding will be provided by a DCNR grant obtained by Bellefonte Borough.





The District participated in three garden projects this year. We continued to support volunteers in tending the Edible Landscape Garden in Talleyrand Park and we assisted with preliminary plans to create a Pollinator Garden with the PSU Master Gardeners in the Park. We once again partnered with the Centre County Correctional Facility to plant a vegetable garden at the county prison.

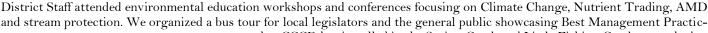
CCCD completed our Chesapeake Bay Watershed Forestry Program. With funds awarded to CCCD by the US Forest Service we supplemented the buffer work of PVCA, ClearWater Conservancy, USFWS, and the Spring Creek Chapter of Trout Unlimited. We planted buffers on CCCD sites in the Bald Eagle Watershed and did buffer maintenance on several farms in the county. We completed the project in June 2016.

2016 Annual Report Education

In 2016 the District offered watershed education to fifth and sixth grade students in the State College and the Bellefonte Area School Districts. Watershed Specialist Ann Donovan visited the schools with the Enviroscape, a hands-on watershed model, to teach about non-point source pollution. She participated in field days at the Bald Eagle State Park, teaching pond study and watershed awareness. In April of 2016 Ann joined other professionals to bring over 500 students from Clearfield and Centre Counties to the fourth annual Clean Water Days event at Black Moshannon State Park. She coordinated a Day of Caring site along Spring Creek with Bald Eagle Area School District students and the Canoe Club of Centre County. She assisted the Penns Valley Conservation Association by teaching stream study at the Muddy Paws Marsh in Spring Mills.

In addition to her activities with the county elementary school age students, Ann was a guest lecturer at Penn State and she participated in other environmental events at the University. She served on the PA Water Resources Center grant review committee at Penn State.

The District sponsored the county Envirothon on May 11 at Bald Eagle State Park and staff members participated in the Pennsylvania and North American Envirothon later in the year.



es that CCCD has installed in the Spring Creek and Little Fishing Creek watersheds. We provided presentations for the Spring Creek Chapter of Trout Unlimited and the Osher Lifelong Learning Institute.

We provided environmental outreach activities at the Grange Fair and supported PACD during Ag Progress Days. Ann has been involved with the PSU sponsored Natural Resources Leadership Institute and the Spring Creek Watershed Association Atlas Project.





PA Nutrient Management Program

In 2016, Centre County Conservation District staff received five nutrient management plans for review. Three plans were for new operations, one plan was due to expansion and an existing plan was amended for another three years. All five plans were approved by the District Board of Directors. District staff also conducted twelve Nutrient Management Status Reviews. With the exception of manure testing and record keeping, all operations reviewed appeared to be in compliance with ACT 38 regulations.

Record Keeping, Manure Sampling under ACT 38

ACT 38 requires records to be kept and maintained on the operation for at least 3 years. Records shall include:

<u>Annual Manure Production</u>-annual amount of manure produced for each manure group listed in the plan.

Manure Test Results-annual manure tests for each manure group listed in the plan. If an outdoor (receives rainwater) manure storage is emptied twice per year, Spring & Fall, there would be 2 manure groups represented in the plan. Each manure group, Spring & Fall, would need to be sampled every year. One sample cannot represent both groups.

Soil Test Results- a soil test is required once every three years for each crop management unit.

<u>Land Application of Nutrients</u>- this would include field ID, number of acres, date of application, and application rate for each crop management unit.

Crop Yields- annually, approximate yield levels for each crop management unit.

<u>Uncollected Manure</u>- annually, number of animals, number of days, and average number of hours per day on each pasture unit.

<u>Manure Export Sheets-</u> for operations that export manure, the exporter is responsible for the completion of the manure export sheet and providing a copy to the importer and retaining a copy at the exporting site.

In 2016 the Centre County Conservation District (CCCD) partnered with the Natural Resources Conservation Service (NRCS) to install Best Management Practices on a dairy operation located in Ferguson Township. Red Barn Consulting was contracted to provide engineering services for the project. Utilizing grant funding from a Growing Greener Grant, the Environmental Quality Incentive Program, and the landowners the following Best Management Practices were installed: Solid Manure Stacking Facility 11,045 cu. ft., Liquid Manure Storage Facility 120,275 cu. ft., Closure of 2 Waste Impoundments, Waste Transfer (push-off ramp/curbing/pumps/pipeline), Underground Outlets 950', Roof Runoff Structure 660', Heavy Use Area Protection 5,870 sq. ft., Access Road 220', Cattle Walkway 150', Fence 1200' and Structure for Water Control. The landowner will receive tax credits for 50-75% of his out of pocket expenses through the Resource Enhancement and Protection program.

Ferguson Township Dairy



120,275cuft HDPE Lined Manure Storage Facility. Concrete bottom allows access to remove any solids that may not be pumped out.





Push-off ramp with Zimmerman push-off guard enables manure to be safely transferred from free stalls and barnyard into manure storage.

In 2016 the Centre County Conservation District partnered with Penns Valley Conservation Association, Natural Resources Conservation Service and the Chesapeake Bay Foundation to address resource concerns on a dairy operation located in Penn Township. Utilizing grant funds from 4 different grant sources the following Best Management Practices were installed: 3 Stream Crossings, 240' Diversion, 1 Water Control Basin, 320' of 6 inch and 200' of 4 inch Underground Outlet, 315' Cattle Walkway, 2 Spring Developments, 870' of 1 inch and 536' of 4 inch Water Supply Pipeline, 3 Watering Facilities, 9,418' of Streambank Fence, creating 9.2 acres of protective Riparian Buffer, 3,200' of Exterior Pasture Fence and 2,200 sq. ft. of Heavy Use Area Protection. In 2017 a roof will be installed over the Heavy Use Area and the 9.2 acres of Riparian Buffer will be planted with Native Trees and Shrubs to complete the project.

Penn Township Dairy



One of three stream crossings including streambank fence installed on a Penn Township Dairy Farm



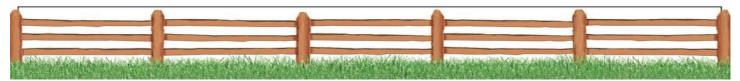
Streambank fence was installed along three Penns Creek tributaries creating 50' wide protective riparian areas. Livestock were also excluded from wetlands. Native trees and shrubs will be planted in the riparian areas this coming spring. A concrete watering trough located towards the center of the photo provides a source of fresh water for the livestock.



A close up of the watering trough shown in the previous picture. A spring development provides a continuous source of fresh water



A stabilized Cattle Walkway provides access to pastures while excluding livestock from the stream located along the left side of the photo and a farm pond on the right side.



In 2016 the Centre County Conservation District was awarded a Watershed Restoration and Protection Program Grant, through the Commonwealth Finance Authority, for the amount of \$275,000. The funding will be used to install Best Management Practices (BMPs) on a dairy operation located in Walker Township. Construction on the Walker Township dairy is expected to commence later this summer. In 2017 the District will again be partnering with Penns Valley Conservation Association and the Natural Resources Conservation Service to install BMPs on agricultural operations.



CENTRE COUNTY CONSERVATION DISTRICT 414 HOLMES STREET, SUITE 4 BELLEFONTE, PA 16823 814-355-6817

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Tom Boldin Steven G. Dershem, Commissioner

Al Stewart

John Smith

COUNTY COMMISSIONERS

Mark Higgins



Dr. Robert Shannon, Chair

Lori Hartle

James Walizer

Kaleb Wolfe

VZZOCIVLE DIKECTORS

Martin Melville Donn Fetteroff

Michael Pipe

Steven Dershem

Education Coordinator Ann Donovan, Watershed Specialist/ Nutrient Management Technician

John Wataha, Agriculture Conservation/

Lu Ann Bruno, Fiscal Technician

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CENTRE CO. RECYCLING HOTLINE



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